

REMARKS

Claims 1-45 were pending. Claims yyy have been amended. Accordingly, claims 1-45 remain pending.

Applicant acknowledges and appreciates examiner's withdrawal of the prior rejections in the Office Action dated July 28, 2004.

In the present Office Action, a new ground of rejection is made in view of a newly cited reference. In particular, claims 1-11, 14-29, 32-42 and 44-45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,470,394 (hereinafter "Bamforth"), in view of U.S. Patent No. 5,455,865 (hereinafter "Perlman"), and in further view of newly cited U.S. Patent No. 5,619,500 (hereinafter "Heikali"). However, upon review, Applicant submits each of claims 1-11, 14-29, 32-42 and 44-45 recite features neither taught nor suggested by the combination of Bamforth, Perlman, and Heikali. Accordingly, Applicant traverses the above rejections.

In the present Office Action, newly cited Heikali is cited as disclosing particular features of claims 1, 15-19, 36-37, and 44-45. For example, Heikali is cited as disclosing the following highlighted features of claim 1:

"A method for routing messages comprising:
converting a message received from a sender into an internal format comprising at least an attribute part and a data part;
writing into said attribute part data extracted from said received message and data
indicative of a protocol by which the message was received; and
routing said converted message in dependence on the data in said attribute part."

In particular, Fig. 3 and col. 9, lines 1-30, of Heikali are cited as disclosing the above features. Col. 9, lines 1-30, read as follows:

“In operation under the control of a microprocessor (not shown), when SAM 704b is available following a transfer of its contents to network interface output queue 714, the microprocessor causes a transfer of the currently indexed pointer from the highest priority non-empty queue formed by pools 751 through 753. The microprocessor evaluates the VPI/VCI information contained in the data stored in the cell of DRAM array 703 pointed to by that transferred pointer in order to determine the necessary data rate shaping necessary for that cell of information. The microprocessor does this by looking at the database look-up table, using the VPI/VCI of the pointed to cell as a key and information stored in the database portion of the memory system indicating when the last cell of data was sent to the same destination. Based on this information, the microprocessor causes the pointer to be placed in the appropriate location on the traffic shaping ring. During the indexing of the traffic shaping ring, when a given location in the traffic shaping ring is reached, the contents of that location is a pointer which has been moved from the appropriate one of pools 751 through 753, and thus indicates the location within DRAM array 703 of the cell data which is to be moved to the output queue. The microprocessor uses this pointer which has been read from the traffic shaping ring to cause that cell of data to be transferred from DRAM array 703 to SAM704b, which information is then serially moved from SAM 704b to the ATM switch.” (Heikali, col. 9, lines 2-28).

In the above, Heikali describes movement of data from a cell bus 403, to a memory 701, and finally to an output queue 714 and ATM switch. In particular, Heikali generally describes a mechanism to control data transmission rates. In order to manage data transmission rates, a traffic shaping ring is used in combination with the described VPI/VCI, lookup table, and processing. For example, Heikali further describes:

“During the operation of network interface module 402. . . it is important that traffic shaping be provided. Traffic shaping serves to ensure that data is not sent to the ATM switch at a rate faster than the receiving station, connected to ATM switch at a distant location, can receive it. It also ensures that the data accumulating at any intermediate ATM switches does not exceed the switching and buffering capacity of that ATM switch. For this reason, the ATM protocol requires ATM packets to include a connection ID indicating that this packet is part of a data connection between two specific ATM nodes. The connection ID contained within each ATM packet includes a virtual path ID (VPI) and a virtual connection ID (VCI). The VPI/VCI information is established in advance, based on the specific stations which are to communicate these packets, and the data rates

capable by each of those stations. . . . All of this information goes into a database so that the database can be accessed based on the VPI/VCI information to determine data rate information. This data rate information indicates how fast data should be sent by network interface module 402 to the ATM switch, Furthermore, it is typical that different types of data have different priorities. For example, it is normally expected that voice data has the highest priority, since voice data indicates that people are carrying on a conversation in real time and packets containing voice information should not be unduly delayed. On the other hand, computer information contained in data packets can be delayed somewhat without a significant single channel voice/data problem. Thus, it is common for 24 channels of voice/data to have priority 1, (DS0) to have priority 2, and variable bit rate data to have priority 3. Thus, when cell bus side 670 of network interface module 402 handles data received from the cell bus 403, processor circuit 676 performs these prioritization and traffic shaping functions. Data cells are analyzed to determine their priority and, using the VPI/VCI look-up table, the data rate associated with their receiving station. Based on this information, information cells are moved to a traffic shaping ring at appropriate locations on that ring so that these data cells are output to the ATM switch in an appropriate sequence, with higher priority data cells being generally transmitted prior to lower priority data cells, and the transmission of data cells to a given destination, regardless of their priority, being transmitted so as not to exceed the data rate of the receiving station or intermediate ATM switches.” (Heikali, col. 6, line 59 – col. 7, line 47).

With this further explanation provided, it becomes clear that Heikali does not disclose the features “writing into said attribute part data extracted from said received message and data indicative of a protocol by which the message was received” in the above cited portion of Heikali. Rather, Heikali merely discloses that the microprocessor determines the data rate shaping necessary for a given cell “by looking at the database look-up table, using the VPI/VCI of the pointed to cell as a key” in order to control the data rate.

Accordingly, Applicant submits the cited combination of references does not disclose all of the features of claims 1, 15-19, 36-37, and 44-45. Therefore, each of these claims, as well as their dependent claims, are patentably distinguishable from the cited art.

In addition to the above, claims 12-14, 30-32 and 43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bamforth, Perlman, and Hiekali, in further view of U.S. Patent No. 6,658,568 (hereinafter "Ginter"). In view of the discussion above, Applicant submits the rejections directed to these dependent claims are overcome for at least the reasons discussed above. Accordingly, additional discussion of the dependent claims is not believed necessary at this time.

Should the examiner believe there remain issues which would prevent the present application from proceeding to allowance, a telephone interview is requested by the below signed representative, at (512) 853-8866, in order to facilitate a resolution.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5181-77301/RDR.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

Respectfully submitted,



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